caTissue Suite



Biobanking management system

caTissue Suite is an integrated set of caBIG® biorepository management tools designed for biospecimen inventory, tracking, and annotation. The core functions of caTissue Suite help users track the collection, storage, quality assurance, and distribution of biospecimens, as well as locate and request specimens for translational research studies. The suite may also be used to record clinical annotations on participants from whom biospecimens are collected and includes an optional module for extracting information from surgical pathology reports (Cancer Text Information Extraction System, or caTIES).

Capabilities

- Utilize a Web-based application for easy data entry and search functionality
- Achieve controlled access to different data types and functions through role-based permission schemes
- Collect multiple specimen types and collection time points for a single participant
- Create flexible storage container schemes and manage biospecimen inventory
- Generate customized barcodes and labels
- Track quality assurance, processing, derivation, and distribution data for primary biospecimens and derived materials
- Create annotations for biospecimens and study participants, including informed consent status, clinical data, and pathology data
- Create dynamic extensions to collect user-defined data related to participants, specimens, and protocols
- Achieve programmatic access and integration with other systems through full-featured APIs
- Access multiple repositories in a single system with user-specific and protocol-specific controlled access to data, and ship and track biospecimens between repositories
- Create and save complex queries, including temporal-based queries
- Extract structured data from surgical pathology reports
- Achieve access to secure, aggregated data through a Common Query Language interface within caGrid

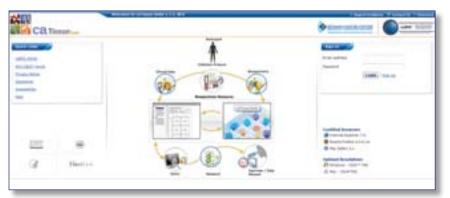
Categories of Use

Biospecimens	☐ Data Sharing	Imaging	Proteomics
Clinical Trials	Genome Annotation	Microarrays	Translational Research
Management	Infrastructure	Pathways	Vocabularies
Data Analysis & Statistical Tools			

U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES







caTissue Suite interface

Architecture Overview

- **Application Type:** caTissue Suite is a Web-based, database driven J2EE application.
- **Server Requirements:** The application is certified for use under Windows 2000 series/XP, Mac OS 10.4.6, Linux Red Hat 9, or Red Hat enterprise ES/AS 2.1 or higher. Full installation requires JBoss version 4.2.2GA, MySQL version 5.0.45, or Oracle version 9 or 10g, JDK version 1.5, Ant version 1.7.
- Client Requirements: The supported browsers are IE 6/7, Firefox 2.0, or Safari 3.1.

Installation and Administration

- **Skill set needed:** Linux/Windows server administrator, MySQL/Oracle database administrator, software engineer with experience with Java needed for application customization.
- Infrastructure needed: Windows/RedHat Enterprise Linux-based server (32- or 64- bit).
- Long-term administration needs: Ongoing system and database administration requirements such as disk space and database management, as well as routine system monitoring.

Resources			
Tool Overview Page	https://cabig.nci.nih.gov/tools/catissuesuite		
Primary Workspace	Tissue Banks and Pathology Tools (TBPT) https://cabig.nci.nih.gov/workspaces/TBPT		
Tissue/Biospecimen Banking and Technology Tools Knowledge Center	https://cabig-kc.nci.nih.gov/Biospecimen/KC		
Tissue Banks and Pathology Tools LISTSERV	https://list.nih.gov/archives/cabig_tbpt-l.html		
caBIG® Tool Inventory	https://cabig.nci.nih.gov/inventory		
caBIG® Support Service Providers	https://cabig.nci.nih.gov/esn/service_providers		
NCI Center for Bioinformatics Applications Support	ncicb@pop.nci.nih.gov		

Key Contributors

- Alvin J. Siteman Cancer Center at Washington University School of Medicine in St. Louis
- Indiana University
- Thomas Jefferson University
- University of Pennsylvania
- University of Pittsburgh Medical Center

Other Life Sciences Distribution Components

- caArray
- caBench-to-Bedside (caB2B)
- calntegrator2
- Cancer Genome-Wide Association Studies (caGWAS)
- Clinical Trials Object Data System (CTODS)
- geWorkbench
- National Biomedical Imaging Archive (NBIA)







NIH Publication No. 10-7506
Printed November 2009

